FIG. 1

NETWORK
MANAGEMENT
STATION
160

101
140
141
150
132
130
131
151
152
153
120
121
122
100

FIG. 2
SIMPLE VALUE NODE PROCESS

START — 201

IS
$X_i(t) \geq T/n$ — 203

NO

YES

SEND THE VALUE
$X_i(t)$ TO NMS — 205
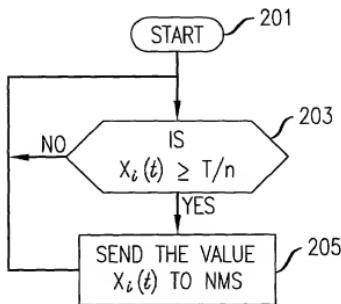
FIG. 4
SIMPLE RATE NODE PROCESS

START — 401

IS
$X_i(t) - X_i(t-1) \geq \delta$ — 403

NO

YES

SEND THE VALUE
$X_i(t)$ TO NMS — 405
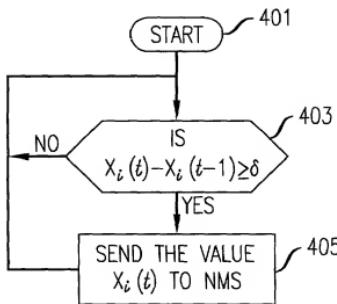
FIG. 3
SIMPLE VALUE CENTRALIZED PROCESS

START — 301

RECEIVE A VALUE
$X_i(t)$? — 303

NO

YES

POLL ALL NODES — 305

IS
$\sum_{i=1}^{n} X_i(t) \geq T$ — 307

NO

YES

GENERATE
AN ALARM — 309
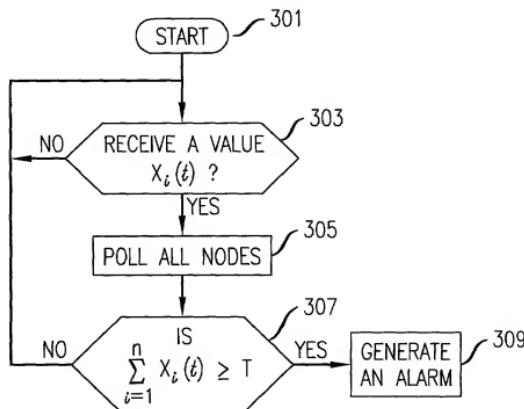
FIG. 5
SIMPLE RATE CENTRALIZED PROCESS

START — 501

SET:
$tm=0$ — 503

$t \geq tm$ OR
RECEIVE A VALUE — 505

NO — YES

SET:
$tm = t + \left\lceil \dfrac{T - \sum\limits_{i=n}^{n} X_i(t)}{\delta \cdot n} \right\rceil$ — 511

POLL ALL
NODES — 507

$\sum\limits_{i=1}^{n} X_i(t) \geq T$? — 509

NO — YES

GENERATE
AN ALARM — 513
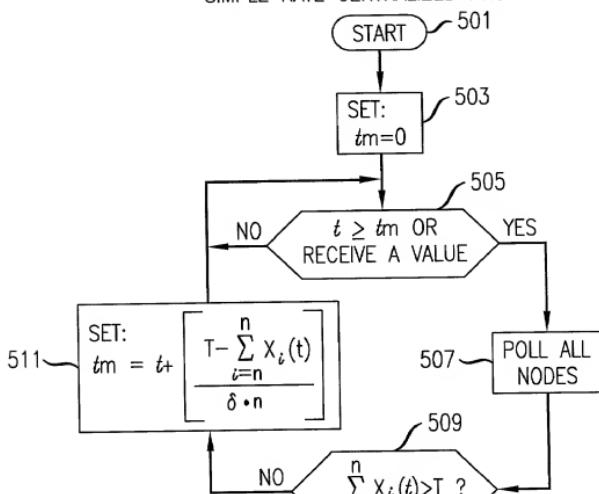
FIG. 6
ADVANCED RATE NODE PROCESS

START — 601

SET:
LAST_UPDATED = 0 — 603

POLL ? — 605

YES

LAST_UPDATE = t
V_LAST_UPDATED = $X_i(t)$
SEND REPORT ($X_i(t)$) — 607

NO

$\dfrac{X_i(t) - V\_LAST\_UPDATE}{t - LAST\_UPDATED} \geq \delta$ — 609

NO — YES

SEND REPORT
$X_i(t)$ — 611
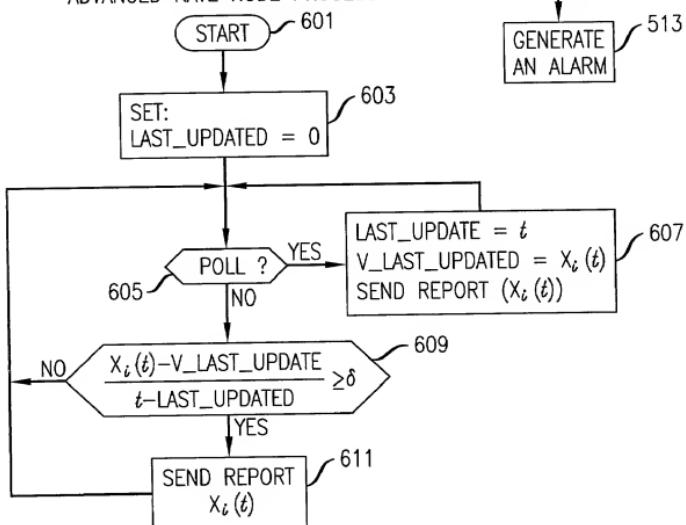
FIG. 7

ADVANCED VALUE NODE PROCESS

START — 701
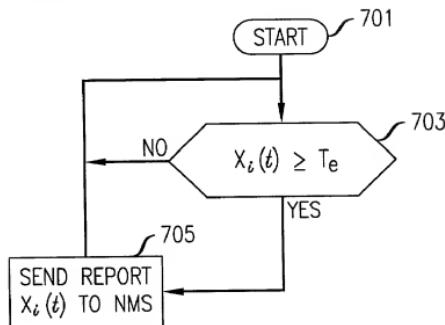
703

NO — $X_i(t) \geq T_e$

YES

705

SEND REPORT $X_i(t)$ TO NMS

FIG. 8

ADVANCED VALUE CENTRALIZED PROCESS

START — 801

803

$X_{ex} = \sum$ RECEIVED VALUES
$n_{ex} =$ NUMBER OF RECEIVED REPORTS

811

GENERATE AN ALARM

809

YES — $\sum X_i(t) \geq T$ — NO

NO — $X_{ex} + (n - n_{ex})T_e \geq T$ — 805

YES

807

POLL ALL NODES